

Application Serial No. 09/837,102
Reply to Office Action of May 30, 2003

Remarks

Reconsideration is respectfully requested in view of the above amendments and the following remarks.

Claims 1, 11, and 13 are canceled without prejudice or disclaimer to the subject matter.

Claim 3 is amended for formal reasons. Claims 5-10, 12, and 14-15 are amended to depend from claim 2 instead of from canceled claim 1. Claim 12 is amended to recite "direction aligned fiber", to track with amendments previously made to claim 2 on March 5, 2003.

New claims 18 and 28 are added to recite that the intersections of the fabric fibers are not resin bonded. Applicants believe this is at least implicitly supported by the disclosure. Applicants note that the specification nowhere discloses that a resin is used to bond the fabric fibers together. In addition, although arrangements for bonding the fabric fibers are disclosed, for example at page 9, lines 15-18 and 25-27, the arrangements disclosed do not utilize bonding resins. Moreover, at page 2, lines 17-25 certain disadvantages are noted with regard to coating fabric fibers with another material (in that case surfactant). Applicants respectfully submit that this constitutes at least implicit disclosure that the fabric fibers are not to be bonded using a resin.

New claims 19-27 are added to recite limitations similar to those in claims 5-10, 12, and 14-15, as depending from claim 3.

No new matter has been added. Claims 2-10, 12, 14-15, and 18-28 are pending in the application.

In the Office Action, claims 1-2, 11, and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Renjilian (U.S. Patent No. 3,834,547), or alternatively under 35 U.S.C. § 103(a) as being obvious from Renjilian. Applicants respectfully traverse the rejection.

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Claims 1 and 11 are canceled herein without prejudice or disclaimer, rendering that portion of the rejection moot. Applicants do not concede the correctness of the rejection.

Claim 2 of the present invention recites a filter cartridge having a non-woven fabric strip, the fiber thereof being direction aligned.

The rejection characterizes Renjilian as disclosing and/or suggesting all features of the present invention. However, Renjilian does not disclose or suggest either a non-woven fabric or fibers thereof that are direction-aligned.

Renjilian is relied upon to disclose a roving, which the rejection equates to a non-woven fabric strip. However, as the term is defined by Renjilian at column 1, lines 30-32 "the term 'roving' means a loose assemblage of fibers drawn or rubbed into a single strand with very little twist" [emphasis added]. That is, as defined by Renjilian, the roving is strand of material. Applicants respectfully submit that a strand is not equivalent to a fabric.

Renjilian does not disclose or suggest a fabric, non-woven or otherwise.

Furthermore, even if the roving of Renjilian could be interpreted as being similar to a non-woven fabric as in the present invention, which point Applicants do not concede, Renjilian does not disclose or suggest fibers therein that are direction aligned. Indeed, Renjilian specifically teaches against such an arrangement. For example, at column 2, lines 41-45, Renjilian discloses that the "strand is in the form of a bundle of disoriented fibers" [emphasis added].

Moreover, Renjilian discloses, for example at column 2, line 40, that the roving comprises a strand of staple fibers, that is, short fibers. Applicants respectfully question whether short fibers as those disclosed in Renjilian would even be suitable for direction aligning. Certain

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difficulties arising from the use of short fibers in filters are described in the specification of the present invention, for example at page 2, lines 14-16.

As the present invention according to claim 2 includes features neither disclosed nor suggested by Renjilian, Applicants respectfully submit that claim 2 is neither anticipated by nor obvious from Renjilian. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 15 depends from claim 2, and incorporates the limitations thereof. Applicants respectfully submit that separate arguments need not be presented in its support at this time. Applicants do not concede the correctness of the rejection, and reserve the right to present further arguments.

Claims 3-4, 6-8, and 10 are rejected under 35 U.S.C. § 103(a) as being obvious from Renjilian. Applicants respectfully traverse the rejection.

Claim 3 of the present invention recites a filter cartridge having a non-woven fabric strip.

As previously argued, Renjilian does not disclose or suggest a fabric, either non-woven or otherwise.

As the present invention according to claim 3 includes features neither disclosed nor suggested by Renjilian, Applicants respectfully submit that claim 3 is not obvious from Renjilian. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 4, 6-8, and 10 depend from claim 2, and incorporate the limitations thereof. As argued above, Applicants respectfully submit that claim 2 of the present invention is not anticipated by or obvious from Renjilian, and Applicants respectfully submit that separate

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arguments need not be presented in support of these dependent claims at this time. Applicants do not concede the correctness of the rejection, and reserve the right to present further arguments.

Claims 5, 9, 13, and 14 are rejected under 35 U.S.C. § 103(a) as being obvious from Renjilian in view of Ogata (EP 466381 A1). Applicants respectfully traverse the rejection.

Claim 13 is canceled herein without prejudice or disclaimer, rendering that portion of the rejection moot. Applicants do not concede the correctness of the rejection.

Claims 5, 9, and 13 depend from claim 2, and incorporate the limitations thereof. The rejection relies upon Ogata to teach details regarding thermal bonding of fibers and fiber structure. However, even if Ogata is prior art as categorized, and is suitable for combination with Renjilian, which point Applicants do not concede, Ogata does not remedy the deficiencies of Renjilian.

In particular, Ogata does not disclose or suggest a non-woven fabric having a direction aligned fiber. Applicants note that Ogata refers to difficulties with the use of short fibers, for example at column 1, line 56 through column 2, line 1, and indicates that the invention of Ogata addresses those difficulties. Thus, Ogata appears to be directed solely to the use of short fibers. As argued above, Applicants respectfully question whether such short fibers even could be used to form a direction aligned non-woven fabric.

Thus, Applicants respectfully submit that claims 5, 9, and 14 are distinguished over Renjilian in view of Ogata for at least the same reasons as presented above with regard to their parent claim 2.

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In addition, particularly with regard to claims 5 and 9, which recite thermal bonding, Applicants respectfully question whether Ogata is suitable for combination with Renjilian. Renjilian specifically discloses, for example at column 2, lines 36-52, that the improvements provided thereby are achieved by bonding fibers in a roving together using a resin, to form bonding sites at the crossover points. In view of this, Applicants respectfully submit that replacing the resin bonding mechanism of Renjilian with a different bonding mechanism, i.e. heat, would effectively destroy the invention of Renjilian.

As all issues raised in the Office Action have been addressed, Applicants believe that this Amendment is fully responsive, and that all pending claims are in condition for allowance. Applicants respectfully request favorable reconsideration in the form of a Notice of Allowance.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney of record, Curtis B. Hamre (Reg. No. 29,165) at (612) 336-4722.



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Respectfully submitted,

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